

### **REMARKS**

This responds to the Office Action mailed on April 6, 2007. Reconsideration is respectfully requested.

Claims 9, 12, 13, and 16 are amended; as a result, claims 1 – 18 remain pending in this application.

#### **Allowable Subject Matter**

Claims 1-11 were allowed.

Claims 13-17 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 13 has been rewritten in independent form including all of the limitations of the base claim 12. Accordingly, claim 13 is believed to be in condition for allowance. Claims 14, 15, and 17 are believed to be allowable at least because of their dependency on claim 13.

Claim 16 has been rewritten in independent form including all of the limitations of the base claim 12. Accordingly, claim 16 is believed to be in condition for allowance.

Claim 9 has been amended to correct a typographical error.

#### **§102 Rejection of the Claims**

Claim 12 was rejected under 35 U.S.C. § 102(e) as being anticipated by Bologna (U.S. 7,079,576 B2).

Applicant's claim 12 is directed to calibrating a scale factor in an adaptive equalizer. The scale factor is used to multiply a sequence of desired voltages used in updating the equalizer during a training sequence. As further recited in claim 12, the scale factor is calibrated once for a communication channel.

Bologna, on the other hand, does not scale equalizer coefficients or calibrate a scale factor. Bologna discloses adjusting the *rate* at which equalizer coefficients are updated or adapted (see Bologna column 11 lines 12 – 17, and column 12 lines 6 – 10). Bologna adjusts the rate at which equalizer coefficients are updated to cancel inter-symbol interference (ISI) among other things (see Bologna column 11, lines 28 – 33). This matched-filter (MF) constraint update

procedure of Bologna is performed on an ongoing basis (e.g., during receipt of data, not during receipt of training signals) (see Bologna column 11, lines 1 – 9). Applicant's claim 12, on the other hand, recites that the scale factor is calibrated once for a communication channel.

Furthermore, Bologna *individually adjusts* the equalizer weights to satisfy the MF criterion (see Bologna column 11 lines 13- 14, and column 12 lines 11 - 18). Applicant's claim 12, on the other hand, determines a *single scale factor* which is used to scale *all weights by the same value*.

In view of the above, Applicant submits that Bologna does not anticipate Applicant's claim 12 and that the rejection of claim 12 under 35 U.S.C. § 102(e) has been overcome.

Applicant's claim 12 further distinguishes over Bologna by reciting that the scale factor is increased when a number of numerical overflows and a threshold satisfy a first relationship. Bologna uses an overflow counter to determine whether or not the equalizer weights are to be individually updated based on the MF constraint error (see Bologna column 11, lines 33 – 36 and 49 – 51).

#### §103 Rejection of the Claims

Claim 18 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bologna in view of Jaussi et al. (U.S. 6,621,330). In view of the above discussion of Bologna, Applicant submits that the combination of Bologna and Jaussi does not result in Applicant's invention as recited in claim 18.

#### RESERVATION OF RIGHTS

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference.

Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

### **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (480) 659-3314 to facilitate prosecution of this application.

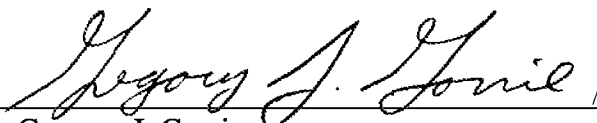
If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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